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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/685,026

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Andrew J. Wright

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EXAMINER

TRUONG, LOAN

ART UNIT

PAPER NUMBER

2114

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/685,026

Applicant(s)

WRIGHT ET AL.

Examiner

LOAN TRUONG

Art Unit

2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-16 and 22-30 is/are allowed.
- 6) ☒ Claim(s) 17-19 and 21 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1-16 and 22-30 are allowed.

The following is an examiner's statement of reasons for allowance:

The examiner deems claims 1-16 and 22-30 as novel when read as a whole for:

A comparator coupled to compare a search key value against the first and second limitations of a content addressable memory (CAM) comprising: sets of values and report an error if a first location within the first set of CAM locations that produces a match is different from a first location within the second set of CAM locations that produces a match, regardless of whether the match suppression bit is set.

An error location circuit coupled to check the first and second sets of values using the error detection encoded bits and to record, as a result of the check whether the error is within the first set of values, the second set of values, or both.

Generating an error if the first location within the first set of CAM locations is at a different index than the first location within the second set of CAM locations.

Copying over one of the duplicative sets of values within the first set of CAM locations having a recorded error from a set of values within the second set of CAM locations and having the same index as the first set of CAM locations if there was no error recorded at an index in the second set.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 17-19 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Roth et al. (US 2005/0001744).

In regard to claim 17, Roth et al. disclosed a content addressable memory (CAM), comprising:

A first block of CAM locations coupled to store a first set of values (*PE Block 0, fig. 2, 205, 206*);

A second block of CAM locations coupled to store a second set of values (*PE Block 1, fig. 2, 205, 206*); and

An input control circuit (*MMFin, fig. 4b*) coupled to the first and second blocks of CAM locations (*MF0 and MF1, fig. 4b, 422, 426*) that selects if the first and second sets of values are to be duplicative of each other (*MMFout, fig. 4b, 422, 426*).

In regard claim 18, Roth et al. disclosed the CAM as recited in claim 17, further comprising an output control circuit coupled to:

Receive a signal from the input control circuit indicating if the first and second sets of values in the respective first and second blocks of CAM locations are duplicative of each other or not (*MMFin, fig. 4b*); and

Select a first set of values from the first block of CAM locations (*lower physical address is a higher priority and  $B < A$ , subtractor outputs a high, paragraph 0047*), a second set of values from the second block of CAM locations ( *$B > A$ , subtractor outputs a low, paragraph 0047*), or both the first and second sets of values from the respective first and second blocks of CAM locations ( *$A = B$ , Subtractor outputs a low, fig. 4a, 404, paragraph 0047*).

In regard to claim 19, Roth et al. disclosed the CAM as recited in claim 18, wherein the output control circuit provides a priority order (*each 2:1 sub PE determines which of its two inputs (block) has the highest priority match, paragraph 0044*) by which the first set of values from the first block of CAM locations and the second set of values from the second block of CAM locations are compared against a search key value relative to other sets of values within the

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first and second blocks of CAM locations (*CAM takes a search word and performs a search-and-compare operation for that search word through the entries stored in the CAM, paragraph 0004*).

In regard to claim 21, Roth et al. disclosed the CAM as recited in claim 18, further comprising a plurality of CAM block pairs, whereby each pair is coupled to operate independent of other CAM block pairs (*PE Block 0-127, fig. 2, 205, 206*).

### ***Conclusion***


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Loan Truong whose telephone number is (571) 272-2572. The examiner can normally be reached on M-F from 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Loan Truong  
Patent Examiner  
AU 2114



**SCOTT BADERMAN**  
**SUPERVISORY PATENT EXAMINER**